APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,166	07/03/2003	Adam K. Kolawa	50283/RRT/P396	9159

23363   7590   05/18/2007
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER
TECKLU, ISAAC TUKU

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
05/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/613,166	KOLAWA ET AL.
Office Action Summary	Examiner	Art Unit
	Isaac T. Tecklu	2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 February 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-31 and 42-48</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-31 and 42-48</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment 02/06/2007.

2. Claims 1, 3, 6, 14, 16-19, 27-28 and 31 have been amended.

3. Claims 32-41 have been cancelled.

4. New claims 42-48 have been added.

5. Claims 1-31 and 42-48 have been examined.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-31 and 42-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Bowman (US 6,725,399 B1).

Per claim 1 (Currently Amended)

Bowman discloses a method for automatically preventing errors in computer software having a plurality of different life cycle phases (e.g. FIG. 1 and related text), the method comprising:

Storing source code of the computer software in a code repository (e.g. FIG.5 and related text).

executing a plurality of software verification tools to verify the computer software (e.g. Fig. 4, element 3.11 Execute Restoration Procedure and FIG. 5, Execute Test(s) and related text), wherein each of the plurality of software verification tools has a verification scope corresponds

to a respective lifecycle phase of the computer software, (col. 7: 30-60 "... system text,

performance testing ... runtime ... acceptance testing ... ") and automatically generates one or

more test cases from the source code of the computer software (e.g. FIG. 3, 207 and 2.12 and

related text);

generating verification results for each respective lifecycle phase of the computer

software, responsive to executing the plurality of software verification tools and the

automatically generated test cases and (e.g. FIG. 1, element 5.0 and related text and col. 7: 30-

60 "... system text, performance testing ... runtime ... acceptance testing ... ");

processing the verification results for generating ~~an objective criterion of quality of~~ a

representation of functional behavior the computer software (e.g. FIG. 1, Test Result Analysis

5.0 and e.g. FIG. 5, Management Reporting 6.0 and related text); and

~~customizing the verification scope of one or more of the plurality of verification tools~~

~~responsive to the objective criterion of quality of the computer software.~~

Per claim 2

Bowman discloses:

The method of claim 1 further comprising providing a common configuration file for

the plurality of verification tools (col. 7:30-40 "... configuration to ensure known and

predictable results ..." and e.g. FIG. 5, 2.3 and related text).

Per claim 3 (Currently Amended)

Bowman discloses:

The method of claim 2, ~~wherein the step of~~ further comprising customizing ~~the~~ a

verification scope ~~comprises~~ of one or more of the verification tools by modifying the common

configuration file responsive to ~~the~~ an objective criterion of quality of the computer software

(e.g. FIG. 3, Define/Refine Test Data 2.7 and related text).

Per claim 4

Bowman discloses:

The method of claim 2 further comprising modifying a portion of the common configuration file specific to one of the plurality of verification tools responsive to the objective criterion of quality of the computer software (e.g. FIG. 3, Define/Refine Expected Results from Business Analysis 2.9 and related text).

Per claim 5

Bowman discloses:

The method of claim 2 further comprising modifying a portion of the common configuration file specific to one of a plurality of software developers responsive to the objective criterion of quality of the computer software (e.g. FIG. 3, element 2.8 and related text).

Per claim 6 (Currently Amended)

Bowman discloses:

The method of claim 1, ~~wherein the step of processing the verification results for generating an objective criterion of quality of the computer software comprises~~ further comprising formulating the verification results in a confidence factor represented by the equation: $C=p/t.times.100$, where p is number of successful test cases and t is total number of test cases (e.g. FIG. 7, element 6.2 Acceptance Criteria and related ext).

Per claim 7

Bowman discloses:

The method of claim 1, wherein each portion of the computer software being developed by a software developer of a plurality of software developers, and the verification results include a plurality of objective criteria each of the plurality of objective criteria corresponding to quality of a respective portion of the computer software developed by each software developer of the plurality of software developers (e.g. FIG. 7, element 6.2 Acceptance Criteria and related ext).

Per claim 8

Bowman discloses:

The method of claim 7 further comprising providing a common configuration file for the plurality of verification tools; and modifying the common configuration file responsive to one or more objective criteria corresponding to quality of a respective portion of the computer software developed by each software developer (e.g. FIG. 3, element 2.8 and related text).

Per claim 9

Bowman discloses:

The method of claim 7 further comprising verifying a first portion of the computer software developed by a first developer of the plurality of software developers using the plurality of verification tools, before the computer software is stored in the code repository (e.g. Fig. 4, element 3.11 Execute Restoration Procedure and FIG. 5, Execute Test(s) and related text).

Per claim 10

Bowman discloses:

The method of claim 9 further comprising allowing storing the first portion of the computer software in the code repository only if result of verification of the first portion meets a set standard (e.g. FIG. 7, element 6.2 Acceptance Criteria and related ext).

Per claim 11

Bowman discloses:

The method of claim 10 further comprising modifying the set standard responsive to the objective criterion of quality of the computer software (e.g. FIG. 3, Define/Refine Test Data 2.7 and related text).

Per claim 12

Bowman discloses:

The method of claim 10, wherein the set standard is common to each of the plurality of software developers (e.g. FIG. 3, Define/Refine Test Data 2.7 and related text).

Per claim 13

Bowman discloses:

The method of claim 10, wherein the set standard is unique to at least one of the plurality of software developers (e.g. FIG. 3, element 2.8 and related text).

Per claim 14 (Currently Amended)

This is the system version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 15

This is the system version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 16 (Currently Amended)

This is the system version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 17 (Currently Amended)

This is the system version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 18 (Currently Amended)

This is the system version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 19 (Currently Amended)

This is the system version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 20

This is the system version of the claimed method discussed above (Claim 7), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 21

This is the system version of the claimed method discussed above (Claim 8), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 22

This is the system version of the claimed method discussed above (Claim 9), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 23

This is the system version of the claimed method discussed above (Claim 10), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 24

This is the system version of the claimed method discussed above (Claim 11), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 26

This is the system version of the claimed method discussed above (Claim 13), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 27 (Currently Amended)

This is another method version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 28 (Currently Amended)

This is another method version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 29

This is another method version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 30

This is another method version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 31 (Currently Amended)

This is another method version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Bowman.

Per claim 42 (New)

Bowman discloses:

The method of claim 27 further comprising executing the plurality of software verification tools to verify the known error is detected in computer software (col. 7:30-40 "... configuration to ensure known and predictable results ..." and e.g. FIG. 5, 2.3 and related text).

Per claim 43 (New)

Bowman discloses:

The method of claim 28 further comprising customizing the verification scope of one or more of the plurality of verification tools for a second time, if the known error is not detected by executing the plurality of software verification tools (e.g. FIG. 5, 4.7 and FIG. 7, 6.2 and related text).

Per claim 44 (New)

Bowman discloses:

The method of claim 27 further comprising executing the plurality of software verification tools periodically to prevent the known error from re-occurring when the computer software is modified (col. 7:30-40 "... configuration to ensure known and predictable results ..." and e.g. FIG. 5, 2.3 and related text).

Per claim 45 (New)

Bowman discloses:

A system for automatically preventing errors in computer software having a plurality of different life cycle phases comprising:

means for providing a known error in the computer software, the known error belonging to a class of errors (e.g. FIG. 5 and related text);

means for providing a plurality of software verification tools each of the plurality of software verification tools corresponding to a respective lifecycle phase of the computer software (e.g. Fig. 4, element 3.11 Execute Restoration Procedure and FIG. 5, Execute Test(s) and related text);

means for analyzing the known error in the computer software to determine what phase of the lifecycle the error was introduce (col. 7:30-40 "... configuration to ensure known and predictable results ..." and e.g. FIG. 5, 2.3 and related text); and

means for customizing a verification scope of one or more of the plurality of verification tools that correspond to the lifecycle phase that the known error was introduced (e.g. FIG. 3, Define/Refine Expected Results from Business Analysis 2.9 and related text).

Per claim 46 (New)

Bowman discloses:

The system of claim 45 further comprising means for executing the plurality of software verification tools to verify the known error is detected in computer software (e.g. FIG. 5, 4.2 and related text).

Per claim 47 (New)

Bowman discloses:

The system of claim 46 further comprising means for customizing the verification scope of one or more of the plurality of verification tools for a second time, if the known error is not detected by executing the plurality of software verification tools (col. 7:30-40 "... configuration to ensure known and predictable results ..." and e.g. FIG. 5, 2.3 and related text).

Per claim 48 (New)

Bowman discloses:

The system of claim 45 further comprising means for executing the plurality of software verification tools periodically to prevent the known error from re-occurring when the computer software is modified (e.g. FIG. 5, 4.2-4.6 and related text).

Response to Arguments

8.   Applicant's arguments with respect to claims 1-31 and 42-48 have been considered but are moot in view of the new ground(s) of rejection. See Bowman art made of record.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
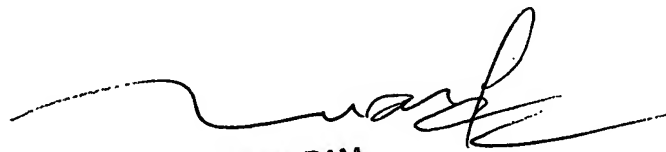
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac T. Tecklu whose telephone number is (571) 272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Isaac Tecklu
Art Unit 2192

TUAN DAM
SUPERVISORY PATENT EXAMINER